

DATA/LOCAL AREA NETWORK (LAN)/COMMUNICATIONS

1. **Objective.** As prescribed in AFI 38-201, *Determining Manpower Requirements*, this Air National Guard Manpower Standard (ANGMS) quantifies the manpower required to accomplish the tasks described in the work center description.

2. **Authority.** AFI 21-series and 33-series of Air Force and Air National Guard directives contain policy and procedural guidance for the Data/Local Area Network (LAN)/Communications work center. This ANGMS has been developed in accordance with procedures contained in AFPAM 38-208V1, *Air Force Management Engineering Program (MEP) Processes*, and is the result of a functional review.

3. **Applicability:**

a. Applies to all ANG flying units except as noted below:

- (1) 102 FW, Otis ANGB MA
- (2) 127 FW, Selfridge ANGB MI
- (3) 140 FW, Buckley ANGB CO
- (4) 184 FG, Wichita KS

b. This standard applies to peacetime operations only.

4. **Standard Data:**

a. Classification. Type II.

b. Approval Date. 1 June 1995.

c. Man-hour Data Source. Operational Audit method (historical record and technical estimate techniques).

d. Standard Man-hour Equation. $Y = 150.1 + 0.3105X$.

e. Workload Factors:

(1) For all flying units excluding the 114 FS, 134 ARG, 162 FG, and 189 AG:

(a) Title. A Traditional Guardsman Authorized.

(b) Definition. The total number of military authorizations supported. Use most recent 12 months' average.

(c) Source. Total Authorizations by CBPO (34 Command File Part B) obtained from ANG/MPMD. From the line "Location Total For," obtain the count from the "Totals" column. From this count, subtract the student flight ("STU FT") population.

(2) For the 114 FS, 134 ARG, 162 FG, and 189 AG:

(a) Title. A Traditional Guardsman Authorized Plus an Average Student Man-Year Supported.

(b) Definition. The total number of military authorizations supported plus the average student man-years supported. Use most recent 12 months' average.

(c) Sources:

1. A Traditional Guardsman Authorized. Total authorizations by CBPO (34 Command File Part B) obtained from ANG/MPMD. From the line "Location Total For," obtain the count from the "Totals" column. From this count, subtract the student flight ("STU FT") population. For the 134 ARG only, add to this figure the number of staff members (Title 10s) supported. This count may be obtained from the Extended Unit Manpower Document, Command 2I, File Part A, maintained by ANG/SM.

2. An Average Student Man-Year Supported:

a. 134 ARG. From ANG/TE, obtain the number of classes programmed for a year. (Count only classes more than 30 calendar days in duration.) Multiply each class by the programmed class size. This figure should then be multiplied by the class duration. The preceding should be accomplished for each programmed class. Add the products for all classes and divide the results by 250.92 (average man-days per year).

The resultant figure represents the average student man-years.

b. 114 FS, 162 FG, and 189 AG. From the Programmed Flying Training (PFT), maintained by NGB/XOO, obtain the number of classes programmed for a year. (Count only classes more than 30 calendar days in duration.) Multiply each class by the programmed class size. This figure should then be multiplied by the class duration. The preceding should be accomplished for each programmed class. Add the products for all classes and divide the results by 250.92 (average man-days per year). The resultant figure represents the average student man-years.

5. Application Instructions:

- a. The application instructions are:
 - (1) Obtain the most current value for the workload factor as outlined in paragraph 4e above.
 - (2) Substitute this value for X in the standard man-hour equation identified in paragraph 4d.
 - (3) Aggregate these total man-hours with the man-hours derived from the application of ANGMS 38B110, Customer Support Branch. Divide the resultant man-hours by the appropriate civilian man-hour availability factor to determine the whole manpower requirements.
 - (4) To determine the appropriate Air Force Specialty Code, refer to the Standard Manpower Table at attachment 2 of ANGMS 38B110.
- b. This ANGMS is appropriate for use with all peacetime civilian man-hour availability factors.

6. Statement of Conditions. The conditions listed below had no affect on the development of this standard, nor will they affect future applications. Analyses of these levels of service indicate no manpower impact:

- a. Minimum response rates.
- b. Minimum manpower levels.
- c. Standardized crew complements.
- d. Safety considerations.
- e. Aircraft turn-around time.
- f. Length of waiting periods.
- g. Levels of backlog.
- h. Hours of operation.

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Attachment
1. Work Center Description

WORK CENTER DESCRIPTION

Data/Local Area Network (LAN)/Communications

DIRECT:

1. DATA ADMINISTRATION:

1.1. PREPARES CUSTOMER REQUEST FOR PROCESSING. Schedules workload by reviewing all jobs for processing and establishing processing priority.

1.2. RESOLVES PROBLEM:

1.2.1. IDENTIFIES, TROUBLESHOOTS, AND RESOLVES PROBLEM:

1.2.1.1. IDENTIFIES, TROUBLESHOOTS, AND RESOLVES HARDWARE PROBLEM.

1.2.1.2. IDENTIFIES, TROUBLESHOOTS, AND RESOLVES SOFTWARE PROBLEM.

1.2.1.3. IDENTIFIES, TROUBLESHOOTS, AND RESOLVES COMMUNICATIONS PROBLEM.

1.2.2. ASSISTS IN PROBLEM SOLVING. Responds to inquiry from system user/operator and reviews console, printer, and other management product as required.

1.2.3. COORDINATES WITH MAINTENANCE PERSONNEL. Coordinates with maintenance personnel to troubleshoot modem and line problem that can't be corrected within the Base Network Communications Center.

1.2.4. NOTIFIES THE FIELD ASSISTANCE BRANCH, SUPPORT BRANCH, AND OTHER APPROPRIATE PERSONNEL.

1.2.5. COORDINATES WITH HOST PROCESSING UNIT AND AFFECTED CUSTOMER DURING TROUBLESHOOTING PROCEDURE.

1.3. ESTABLISHES RECOVERY AND CORRECTION PROCEDURES FOR LOST FILE.

1.4. COORDINATES EXECUTIVE OPERATING SYSTEM, TELECOMMUNICATION, AND AUTOMATED DATA SYSTEM RELEASE.

1.5. PLANS FOR AND CONFIGURES CONNECTIVITY ASSET. Reviews, analyzes, and coordinates locally generated computer system requirement document that affects the architecture or operations. Determines if request is valid and doesn't duplicate a previously submitted requirement. Validates/approves legitimate request. Adds, deletes, relocates, or reconfigures terminal and Internet Protocol address. Adds Local Area Network (LAN) user identification.

1.6. DISTRIBUTES ON-LINE PRINT:

1.6.1. REVIEWS/BREAKS DOWN COMPLETED PRODUCT. Gathers input material and returns all items to the system analysis area.

1.6.2. COUNTS AND CERTIFIES QUANTITY OF CONTROLLED PRODUCT.

1.6.3. RECEIVES/REVIEWS PRODUCT. Receives completed output product, reviews product for processing quality, and distributes to appropriate customer bin/print queue on LAN. Monitors LAN print queue.

1.6.4. LOADS/UNLOADS PAPER AND/OR FORM. Reconfigures printer for specific print requirement.

1.7. MANAGES SYSTEM SECURITY:

1.7.1. RECEIVES AND REVIEWS REQUEST FOR DEMAND AND TRANSACTION INTERFACE PROCESSING USERID/PASSWORD. Notifies user of approval/disapproval and works with user to determine access privileges.

1.7.2. REQUESTS NECESSARY FILE UPDATE. Requests necessary file update to issue password and annotates password log.

1.8. PERFORMS OPERATOR MAINTENANCE. Cleans and maintains equipment. Manages environmental tracking system.

1.9. MONITORS/ESCORTS EQUIPMENT MAINTENANCE PERSONNEL. Notifies job control, monitors maintenance personnel, ensures maintenance is performed, and assists in problem resolution.

1.10. PROVIDES INTERNAL AND/OR EXTERNAL ASSISTANCE. Plans, coordinates, and implements special projects. Provides for contingency processing capability by ensuring customers can, in the event of an emergency, accomplish mission essential work, either on- or off-site in a manual or automated mode.

1.11. PROCESSES PERSONNEL DATA EXCHANGE.

2. MESSAGE TRAFFIC. Accepts narrative message and floppy diskette. Processes incoming and outgoing narrative/service message. Distributes received narrative message and floppy diskette.

2.1. MANAGES STANDARD AUTOMATED REMOTE TO AUTODIN HOST (SARAH)/SARAH-LITE:

2.1.1. INSTALLS SARAH-LITE SOFTWARE ON USER'S COMPUTER AND PROVIDES USER TRAINING.

2.1.2. DISTRIBUTES AND MAINTAINS SARAH-LITE USER MANUAL/GUIDE.

2.2. PROCESSES OUTGOING MESSAGE:

2.2.1. RECEIVES FLOPPY DISKETTE THROUGH DISTRIBUTION WINDOW OR OTHER DIRECT DELIVERY.

2.2.2. REVIEWS MESSAGE FOR ACCURACY.

2.2.3. PROCESSES FLOPPY DISKETTE VIA VIDEO DATA TERMINAL/MESSAGE DISTRIBUTION TERMINAL OR SARAH TERMINAL.

2.2.4. FILES MESSAGE.

2.3. PROCESSES INCOMING MESSAGE:

2.3.1. PROCESSES UNCLASSIFIED MESSAGE (MANUALLY):

2.3.1.1. PRINTS HARD COPY OF MESSAGE.

2.3.1.2. DETERMINES DISTRIBUTION.

2.3.1.3. NOTIFIES ADDRESSEE ON PRIORITY PRECEDENCE AND ABOVE OR MESSAGE REQUIRING SPECIAL HANDLING.

2.3.1.4. REPRODUCES/DISTRIBUTES PAPER COPY.

2.3.2. PROCESSES UNCLASSIFIED MESSAGE VIA SARAH AUTOMATIC DISTRIBUTION AND LOOKUP (SADAL). Directs incoming message via the LAN.

2.3.2.1. DOWNLOADS MESSAGE FROM SARAH TERMINAL TO FLOPPY DISK.

2.3.2.2. UPLOADS MESSAGE DATA INTO SADAL USER SYSTEM.

2.3.2.3. DISTRIBUTES MESSAGE. Distributes message manually or via the LAN.

2.3.3. PROCESSES CLASSIFIED MESSAGE:

2.3.3.1. PRINTS HARD COPY OF MESSAGE.

2.3.3.2. STAMPS/MARKS MESSAGE.

2.3.3.3. DETERMINES DISTRIBUTION.

2.3.3.4. NOTIFIES ADDRESSEE ON PRIORITY PRECEDENCE AND ABOVE OR MESSAGE REQUIRING SPECIAL HANDLING.

2.3.3.5. REPRODUCES PAPER COPY.

2.4. PROCESSES SERVICE MESSAGE:

2.4.1. ORIGINATES SERVICE MESSAGE.

2.4.2. RESPONDS TO RECEIVED SERVICE MESSAGE BY APPROPRIATE ACTION. Corrects and retransmits a previously sent message.

2.4.3. MAINTAINS FILE OF SENT/RECEIVED SERVICE MESSAGE.

2.4.4. INITIATES/RESPONDS TO TRACER ACTION.

2.5. PERFORMS TRAFFIC ANALYSIS.

3. COMMUNICATIONS CENTER:

3.1. PERFORMS TELECOMMUNICATIONS CENTER/BASE COMMUNICATIONS CENTER (TCC/BCC) OPERATIONS:

- 3.1.1. INITIALIZES/MONITORS SYSTEM.**
- 3.1.2. INITIATES CIRCUIT ACTION.**
- 3.1.3. SCHEDULES AND CONTROLS OFF-LINE SYSTEM UTILIZATION.**
- 3.1.4. ACCOMPLISHES RADIO DAY CHANGE.**
- 3.1.5. COORDINATES WITH RELATED WORK CENTER.**
- 3.1.6. MONITORS SYSTEM MESSAGE.**
- 3.1.7. COMPLIES WITH MINIMIZE.**
- 3.1.8. INITIATES/IMPLEMENTS ALTERNATE ROUTING PROCEDURE.**
- 3.1.9. ARCHIVES MESSAGE AS REQUIRED.**
- 3.1.10. ACCOMPLISHES DESTRUCTION OF CLASSIFIED WASTE PRODUCT.**
- 3.1.11. PERFORMS CRYPTOGRAPHIC SECURITY KEY CHANGE.**
- 3.1.12. MAINTAINS LOG OF EVENTS.** Maintains operators summary/master station log.
- 3.1.13. PREPARES A REPORT FOR MANAGEMENT.**
- 3.1.14. MONITORS JOURNAL PRINTOUT/STATISTICS.**
- 3.1.15. CHECKS OPERATIONS CONTINUITY FOR TREND ANALYSIS.**
- 3.1.16. PREPARES MINIMIZE AFTER-ACTION REPORT.**
- 3.1.17. MANAGES THE CUSTOMER EDUCATION PROGRAM.**
- 3.1.18. IDENTIFIES SYSTEM DEFICIENCY AND PROCESSES AS NECESSARY.**
- 3.1.19. PERFORMS SOFTWARE MAINTENANCE AND SOFTWARE BACKUP.**
- 3.1.20. UPDATES DATABASE.** Maintains preformatted message file.
- 3.1.21. MONITORS ENVIRONMENTAL CONDITION AND NEW EQUIPMENT INSTALLATION.**
- 3.1.22. MAINTAINS/UPDATES ADDRESS INDICATING GROUP FILE, POSTS CHANGE TO ALLIED COMMAND PUBLICATION, AND MAINTAINS JOINT ARMED FORCES PUBLICATION.**
- 3.1.23. GENERATES MAINTENANCE ACTION AND FORWARDS DOCUMENTATION TO TELECOMMUNICATIONS MANAGER.**

3.2. PERFORMS SARAH TERMINAL HARD DRIVE COMPRESSION.

3.3. MAINTAINS SECURITY OF CONTROLLED AREA OF TCC/BCC:

3.3.1. MAINTAINS AUTHORIZATION LETTER:

3.3.1.1. MAINTAINS AUTHORIZATION LETTER FOR RECEIPT OF MESSAGE TRAFFIC TO ENSURE SECURITY OF AUTODIN TRAFFIC.

3.3.1.2. MAINTAINS AUTHORIZATION LETTER FOR RECEIPT OF ON-LINE PRINT.

3.3.1.3. ESTABLISHES/MAINTAINS SADAL USER'S MAILBOX.

3.3.2. MAINTAINS SIGN-IN LIST AND ACCESS LIST FOR TCC/BCC.

3.3.3. MAINTAINS STRICT ACCOUNTABILITY OF COMMUNICATIONS SECURITY AID.

3.3.4. INVENTORIES CLASSIFIED MATERIAL.

3.3.5. PERFORMS ALARM CHECK.

3.3.6. PERFORMS DAILY OPENING/CLOSING OF COMMUNICATION CENTER.

4. LOCAL AREA NETWORK/WIDE AREA NETWORK (LAN/WAN):

4.1. PROVIDES ASSISTANCE. Provides system administrator assistance and LAN/WAN management assistance to user. Acts as a liaison between the standard systems manager and LAN/WAN manager to identify recurring problem and limitation for resolution by the standard systems manager.

4.2. PROVIDES TECHNICAL SUPPORT. Provides technical support to group administrators for configuration, connectivity, maintenance, and software.

4.3. PERFORMS ACCOUNT MANAGEMENT. Coordinates systems problem and notifies user of shutdown.

4.4. MAINTAINS LAN/WAN STANDARDIZATION:

4.4.1. PERFORMS ADDRESS STANDARDIZATION. Manages street talk name/functional address and list.

4.4.2. PERFORMS SYSTEM (HARDWARE/SOFTWARE) CONFIGURATION STANDARDIZATION.

4.5. PERFORMS NETWORK MANAGEMENT ANALYSIS:

4.5.1. MAINTAINS/UPDATES VIRTUAL NETWORKING SYSTEM SUMMARY.

4.5.2. MAINTAINS/UPDATES INPUT/OUTPUT STATISTICS.

4.5.3. MAINTAINS/UPDATES LAN/WAN INTERFACE STATISTICS.

4.5.4. MAINTAINS/UPDATES HIGH-LEVEL DATA LINK CONTROL.

4.5.5. PERFORMS TRANSMISSION CONTROL PROTOCOL/INTERNET PROTOCOL SERVER TO SERVER LINK.

4.5.6. PERFORMS SERVER DISK USAGE.

4.5.7. MAINTAINS/UPDATES NETWORK TOPOLOGY.

4.5.8. MAINTAINS/UPDATES FILE SERVICE STATISTICS.

4.5.9. MAINTAINS/UPDATES COMMUNICATIONS STATISTICS.

4.6. FUNCTIONS AS FILE SERVER ADMINISTRATOR:

4.6.1. MANAGES LAN USER ACCESS:

4.6.1.1. ADDS, DELETES, AND CREATES LAN USER.

4.6.1.2. MAINTAINS THE LEVEL OF NETWORK SECURITY ACCORDING TO APPLICABLE DIRECTIVE:

4.6.1.2.1. ESTABLISHES SECURITY ACCESS FOR LAN USER.

4.6.1.2.2. AUTHORIZES ACCESS. Establishes access right for file service subdirectory and organization subdirectory.

4.6.2. INSTALLS, MAINTAINS, AND UPDATES SYSTEM/APPLICATION SOFTWARE.

4.6.3. MANAGES COMPACT DISK (CD) SERVER:

4.6.3.1. INSTALLS CD SERVER.

4.6.3.2. MAINTAINS/UPDATES CD SERVER.

4.6.3.3. MAINTAINS/UPDATES TACKBOARD.

4.6.4. BACKS-UP SYSTEM. Obtains tape, checks for damage, performs backup, and verifies accuracy of backup.

4.6.4.1. PERFORMS DAILY INCREMENTAL.

4.6.4.2. PERFORMS WEEKLY FULL.

4.6.4.3. PERFORMS MONTHLY BACKUP.

4.6.4.4. PERFORMS ANNUAL BACKUP OF ENTIRE SYSTEM.

4.6.4.5. MAINTAINS MEDIA LIBRARY:

4.6.4.5.1. REVIEWS TAPE LIBRARY SUSPENSE LISTING.

4.6.4.5.2. MAINTAINS TAPE CHANGE SUSPENSE SYSTEM.

4.6.4.6. MAINTAINS BACKUP IN SECURE ENVIRONMENT IN CASE OF CATASTROPHIC LOSS OF SYSTEM.

4.6.4.7. PERFORMS FILE RECOVERY/RESTORATION FROM BACKUP FILE.

4.6.5. PERFORMS SYSTEM MAINTENANCE:

4.6.5.1. CLEANS TAPE DRIVE.

4.6.5.2. PERFORMS SYSTEM CLEANUP FOR USER ACCOUNT. Manages mailbox, shared files, and access list.

4.6.6. ADDS ADDITIONAL SERVER.

4.6.7. INSTALLS AND MAINTAINS MENU SYSTEM.

4.6.8. MAINTAINS SYSTEM AT OPTIMUM PERFORMANCE:

4.6.8.1. BALANCES DISK USAGE.

4.6.8.2. BALANCES LOAD BETWEEN SERVERS.

4.6.8.3. OPTIMIZES TRAFFIC BETWEEN SERVERS.

4.6.8.4. ENSURES INTERFACE (NETWORK CARD) IS OPERATING CORRECTLY.

4.7. PROVIDES CUSTOMER ASSISTANCE:

4.7.1. PROVIDES SOFTWARE SUPPORT/MEMORY MANAGEMENT. Includes LAN virus protection.

4.7.2. PROVIDES COMMUNICATIONS SUPPORT.

4.7.3. PROVIDES TECHNICAL/HARDWARE SUPPORT.

4.7.4. PERFORMS SYSTEM TROUBLESHOOTING/DIAGNOSTICS.

4.7.5. MONITORS AND RESPONDS TO HELP DESK MESSAGE.

4.7.6. LOADS SOFTWARE UPDATE.

4.8. OPERATES/MONITORS SERVER CONSOLE.

4.9. MAINTAINS SERVER LOG REPORT.

4.10. DETERMINES PROCEDURE FOR INFORMING USER OF SYSTEM FAILURE OR SHUTDOWN.

4.11. PERFORMS FOLLOW-UP/CONTINUOUS LAN/WAN TRAINING. Provides training as system and software are updated.

4.12. PERFORMS TRAVEL:

4.12.1. PERFORMS VICINITY TRAVEL. Coordinates for travel to work site, travels to work site, coordinates for travel to work center, and returns to work center.

4.12.2. PERFORMS GEOGRAPHICALLY SEPARATED UNIT (GSU) TRAVEL. Performs associated travel to and from the GSU.

5. TECHNICAL DATA SUBACCOUNT MAINTENANCE. Posts data and changes to file. Maintains file for serviceability.

6. TRADITIONAL GUARDSMAN PROFICIENCY TRAINING:

6.1. REVIEWS INDIVIDUAL TRAINING RECORD/JOB PROFICIENCY GUIDE AND DETERMINES TRAINING REQUIREMENT.

6.2. ANNOTATES TRAINING RECORD UPON COMPLETION OF TRAINING.

6.3. DEVELOPS/REVIEWS TRAINING PLAN.

INDIRECT:

I1. SUPERVISION:

I1.3. REVIEWS INCOMING DISTRIBUTION. Reviews incoming correspondence for information and necessary action and marks for routing.

I1.4. REVIEWS OUTGOING DISTRIBUTION. Reviews outgoing correspondence for completeness and accuracy and signs.

I2. ADMINISTRATION:

I2.13. ACKNOWLEDGES VISITOR.

I2.14. MAINTAINS OFFICE EQUIPMENT.

I3. MEETING:

I3.1. PREPARES FOR MEETING. Gathers information, organizes material, prepares chart or slide, and practices presentation.

I3.1.5. PREPARES FOR WORK CENTER MEETING.

I3.2. CONDUCTS OR ATTENDS MEETING.

I3.2.5. CONDUCTS OR ATTENDS WORK CENTER MEETING.

I4. TRAINING:

I4.4. RECEIVES TRAINING. Prepares for training, receives instruction, performs procedures, and takes test.

I5. SUPPLY:

I5.4. OBTAINS EXPENDABLE SUPPLIES. Determines need, researches stock number, picks up expendable supplies from supply custodian, and distributes supplies.

I7. CLEANUP:

I7.1. PREPARES WORK AREA. Places tool or equipment in proper location at beginning of duty period, and arranges area to conform with any sanitary, safety, or security requirement.

I7.2. PUTS WORK AWAY. Stores tool or equipment in proper location at the end of the duty period and arranges area to conform with sanitary, safety, or security requirement.

I7.3. CLEANS WORK AREA. Dusts, sweeps, mops, waxes, buffs, washes window, and performs other associated janitorial tasks.

I7.3.1. CLEANS OFFICE AREA.